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The Effects of Pre-Business School Professional Experience On Early Career Characteristics:

A Study of an Alumni Sample From the Sloan School of Management

Pierre-Yves Lejune
Lejeune

August 1973

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The Effects of Pre-Business School Professional Experience On Early Career Characteristics:

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Introduction

The assessment of the importance of pre-business school experience is a controversial issue among administrators and members of the faculty of business schools. On the one hand, some administrators and faculty members claim that graduate students in business get more out of their managerial education when they have had prior professional experience than when they come directly from undergraduate programs. In their opinion, work experience provides perspective, enhances the assimilation of managerial knowledge and facilitates the transfer of management technique to the real world.

On the other hand, the opponents of this viewpoint argue that work experience dampens the student's intellectual curiosity and enthusiam for advanced managerial technique. For these people, a high degree of academic orientation is more conducive to innovation in work settings than prior experience in the business world.

In practice, work experience plays a minor role in the evaluation of business school applicants. Admission criteria reflect a large number of dimensions*, e.g. ATGSB score, cumulative grade point average, leadership qualities, native ability, etc. Therefore, in a given class, the proportion of students with prior professional experience does not depend solely on the consideration of professional experience, but is

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*A detailed analysis of the admission process at the Sloan School of Management is offered by A.E. Amstutz, K.A. Moore and T.F. Reising in "The Management of Education," S.S.M. Working Paper # 610-72, August 1972, Chapter 7.

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an outcome of the whole admission process. For example, Table 1 shows that Harvard Business School has had, over the past twenty years, an admission policy that has resulted in a large proportion of students with prior professional experience (about 60 per cent), whereas the admission process at the Sloan School of Management has led to a lower rate of students with pre-business school professional experience (about 40 per cent).

In the presence of such different outcomes of admission policies, one wonders whether pre-business school professional experience really matters in the selection of applicants to graduate schools of business and management. Three questions appear to be of major significance in the assessment of the importance of pre-business school experience.

First of all, there is the question of interdependence between pre-business school experience and other characteristics of applicants at admission time. For example, is professional experience interrelated with undergraduate background, native ability, etc.? If so, the admission criteria should not be treated independently in the admission policy. Secondly, it is unclear whether people with professional experience specialize in identical proportions in the various concentration fields as their inexperienced colleagues. If not, is the effect of professional area on concentration choice systematic and predictable? Thirdly, and most important, how is later career development affected by pre-business school professional experience? Among other things, it would be interesting to know whether the occupations held five and ten years after gradua-

Table 1

Pre-Business School Professional Experience

Sloan School of Management

Years of Graduation:	1952-57	1958-62	1963-67	1968-72	1952-72
Sample Size:	(52)	(115)	(159)	(189)	(515)
Professional Experience					
Did not work	75.0	61.7	57.2	59.8	61.0
Held Full-time job	25.0	38.3	42.8	40.2	39.0
	100.0	100.0	100.0	100.0	100.0

Harvard Business School*

Years of Graduation:	1952	1957	1962	1967
Professional Experience				
Did not work	36	41	37	44
Held Full-time job	64	59	63	56
	100	100	100	100

*Source: Hoeft, W.F., Director of Alumni Programs, Harvard University June 9, 1972, Report on the M.B.A. classes of 1937, 1942, 1947, 1952, 1957, 1962 and 1967.

tion, by people with pre-business school professional experience, differ from those with no such experience. The major dimensions along which occupations can be compared are 1) the functional field or functional area of activity 2) the type of organization 3) the line or staff position and hierarchical level and 4) the annual income.

To my knowledge, no study has been published which deals with the effects of pre-business school professional experience on the graduate field of concentration and on later career development. There is, however, evidence that people with prior professional experience differ from their straight-out-of-college colleagues. A difference noted by Amstutz, Moore and Reising (1972), in a comparison of experienced and non-experienced applicants to the five business schools they studied was that experienced applicants were less impressed by (or more critical of) most attributes than their less experienced colleagues.

The purpose of this paper is to attempt to understand more fully the importance of pre-business school professional experience in admission decisions. This will be done by answering the aforementioned questions for a sample of alumni from the Sloan School of Management.

Methodology

Questionnaire & Sample: The data necessary to investigate the previous research questions are extracted from a questionnaire (see Appendix 2) which was sent to all graduate alumni from the Sloan School of Management. This questionnaire was designed to permit the analysis of various aspects

of career development.* A first mailing in July 1972 produced less than a 30% response rate. A follow-up sent out in November 1972 boosted the overall rate of return to 46.5 per cent. The composition of the sample, broken down by sex, citizenship, degree and year of graduation is provided in Appendix II. The basic sample selected for study is composed of American males holding a Masters of Science degree from the Sloan School of Management. This sample comprises Sloan School alumni or 36.8% of the total population. The number of American males holding an M.S. degree was estimated from alumni records to be 1,038, which gives a sampling ratio of 49.6%.

Concepts

Pre-business school experience can be defined in different ways. For instance, some people would consider summers jobs, short periods (e.g. six months) of full-time employment, or part-time jobs performed concurrently with graduate study as professional experience. In this study, pre-business school professional experience is more narrowly defined as any full-time military or business experience which lasted for more than one year, took place after obtaining a Bachelor's (or Master's) degree and before entry into the Sloan School of Management graduate program.

The classifications of undergraduate schools and fields and of Sloan concentrations are straightforward and are presented in the sections de-

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* See dissertation of Pierre Lejeune, "Career Paths: A Study of a Sloan School of Management Alumni Sample", Sloan School of Management, M.I.T., September, 1973.

voted to them.

As for the occupational career, the operational definition selected in the research is the chronological list of an individual's organization roles and incomes associated with the occupations held by that individual. An organization is any legal entity which employs a number of persons for some purpose or work. A role is any job title and description, officially recognized by the members of the employing organization, which at least specifies the functional department or area in which a person's activities take place and the staff-line position--a line position carries authority over the activities of subordinates whereas a staff position does not--and the level of responsibility.

Appendix 3 presents detailed rationale for choice of organization and role classification schemes. This is an excerpt from Pierre Lejeune's doctoral dissertation.

The Undergraduate School

A preliminary analysis (see Table 2) of alumni undergraduate schools by years of graduation reveals the primacy of MIT as a source of graduate students (almost 30 per cent of SSM students come from MIT) and the fact that the next school (Yale) has only contributed slightly more than 5 per cent to the student body. To be noted also is the steady increase in the proportion of Sloan students having had undergraduate education at MIT in recent years. In view of the considerations, only two categories of undergraduate schools are analyzed: MIT versus non-MIT.

Table 2

Undergraduate School

Sloan School of Management

Years of Graduation:	1952-57	1958-62	1963-67	1968-72	Total 1952-72
Sample Size:	(52)	(115)	(159)	(189)	(515)
Undergraduate School:					
MIT	15.4	21.2	27.7	34.4	27.4
Yale	9.6	7.9	4.4	3.7	5.4
Princeton	7.7	2.6	1.3	2.6	2.7
Cooper Union	1.9	3.5	1.3	0.5	1.6
RPI	5.8	4.4	4.4	2.1	3.7
Other Schools	59.6	60.5	61.0	56.6	59.2
TOTALS	100.0	100.1	100.1	100.0	100.0

Table 3

Undergraduate Schools and Pre-Business School Professional Experience

	1952-57 Graduates			1958-62 Graduates		
Professional Experience	MIT	Non-MIT	# of Cases	MIT	Non-MIT	# of Cases
Did not work	20.5 8	79.5 31	39	21.4 15	78.6 55	70
Held Full-time jobs	-	100.0 13	13	20.5 9	79.5 35	44
# of Cases	8	44	52	24	90	114

	1963-67 Graduates			1968-72 Graduates		
Professional Experience	MIT	Non-MIT	# of Cases	MIT	Non-MIT	# of Cases
Did not work	31.9 29	68.1 62	91	42.5 48	57.5 65	113
Held Full-time job	22.9 15	77.1 53	68	22.4 17	77.6 59	76
# of Cases	44	115	159	65	124	189

Table 3 shows that Sloan students with no pre-business school professional experience are more likely to come from MIT than from other schools. The difference in the proportion of MIT versus non-MIT students is the smallest among the 1958-62 graduates and largest among the 1952-57 and 1968-72 graduates. For example among 1968-72 graduates, 42.5% of the students with no experience were from MIT whereas only 22.4% of the experienced students were from MIT.

Overall the relationship between undergraduate school and pre-business school professional experience is significant. Sloan students who were MIT undergraduates tend to have less professional experience than their counterparts from other schools.

The Undergraduate Field

More than one-half of the alumni had an undergraduate education in engineering (see Table 4). Management comes next with almost 20 per cent, and 18.6 and 10.3 per cent of the students respectively had a science or a humanities-social science background.

Since 1958 the proportion of students with an engineering background has been declining steadily. On the contrary, the proportion of students coming from management has been rapidly increasing. The proportion of students with a humanities-social science background jumped from 3.5% among 1958-62 graduates to 13.2% among 1963-67 graduates and stabilized among the 1968-72 graduates at 13.2%.

Table 5 indicates that people with no experience have a management

Table 4

Undergraduate Field

Sloan School of Management

Years of Graduation:	1952-57	1958-62	1963-67	1968-72	1952-72
Sample Size:	(52)	(115)	(159)	(189)	(515)
Undergraduate Field:					
Engineering	55.8	67.0	49.1	43.4	51.7
Science	23.1	17.4	19.5	17.5	18.6
Management	19.2	12.2	18.2	24.9	19.4
Humanities & Social Sc.	1.9	3.5	13.2	14.3	10.3
	100.0	100.1	100.0	100.1	100.0

Table 5

Undergraduate Field and Pre-Business Professional Experience

1952-57 Graduates

	Eng.	Sc.	Mgt.	S.S	Total
Did not work	51.3 20	20.5 8	25.6 10	2.6 1	39
Held Full-time Job	69.2 9	30.8 4	-	-	13
# of Cases	29	12	10	1	52

1958-62 Graduates

	Eng.	Sci.	Mgt.	S.S	Total
Did not work	62.0 44	15.5 11	18.3 13	2.3 3	71
Held Full-time Job	75.0 83	20.5 9	2.3 1	2.3 1	44
# of Cases	127	20	14	4	115

1963-67 Graduates

	Eng.	Sc.	Mgt.	S.S	Total
Did not work	41.8 38	22.0 20	23.1 21	11.8 12	91
Held Full-time job	58.8 40	16.2 11	11.8 8	13.2 9	68
# of Cases	78	31	29	21	159

1968-72 Graduates

	Eng.	Sci.	Mgt.	S.S	Total
Did not work	39.8 45	12.4 14	34.5 39	13.3 15	113
Held Full-time job	48.7 37	25.0 19	10.5 8	15.8 12	76
# of Cases	82	33	47	27	189

Abbreviations

Eng. = Engineering
Sci. = Science
Mgt. = Management
S.S = Humanities & Social Science

background more frequently than those with experience. On the contrary, people with prior professional experience have engineering and science backgrounds more frequently than their less experienced counterparts.

In other words, professional experience and undergraduate fields are interdependent. Professional experience tends to be associated with an engineering background, while lack of prior professional experience tends to be associated with a management undergraduate background.

The existence of an MIT undergraduate business curriculum and the high internal rate of admission largely account for the fact that Sloan students with an undergraduate education at MIT had less experience and more frequently a management background.

Sloan Concentration

Formal concentrations or requirements were formally introduced in the Master's program of the Sloan School in 1969. Therefore a statement of concentration area by an alumnus from the years before 1970 only indicates an objective perception of the area in which he devoted most of his efforts. It is noticeable that about one-quarter of them did not report such a field of specialization (see Table 6).

The leading field of concentration is Finance-Economics, comprising 15.7% of the alumni in the sample, followed by Management Information Systems (14.2%), Quantitative Methods (11.5%) and Organization Studies (11.5%). In recent years, Management Information Systems has attracted students at a faster rate, Finance-Economics and Organization Studies

Table 6

Major Field of Study in Management

Sloan School of Management

Years of Graduation: Sample Size:	1952-57 (52)	1958-62 (115)	1963-67 (159)	1968-72 (189)	1952-72 (515)
Concentration:					
General	55.0	23.7	28.9	15.3	24.7
Industrial Dynamics	-	3.1	3.1	1.6	2.3
Industrial Relations	-	-	-	2.1	0.8
International Management	-	1.0	2.5	4.2	2.7
Finance-Economics	5.0	16.5	17.0	16.4	15.7
Management Information & Control	-	1.0	1.3	4.2	2.3
Management Information Systems	2.5	1.0	11.3	25.9	14.2
Marketing	12.5	18.6	8.2	3.7	8.9
Operations Management-Production	2.5	8.2	3.8	3.2	4.3
Operations Research-Quantitative Methods	15.0	13.4	12.6	9.0	11.5
Organizational Development-Organizational Studies	7.5	12.4	11.3	12.2	11.5
Public Sector of Management	-	-	-	1.6	0.6
Other	-	1.0	-	0.5	0.4
Totals	100.0	99.9	100.0	99.9	99.9

Table 7

Sloan Concentration and Pre-Business School Professional Experience

1952-57 Graduates

	General Mgt.	Finance	Mktg. Sales	Oper. Mgt.	Quant. Methods	Oper. Studies	MIS	MIPC	Other	Total
Did not work	66.7 20	3.3 1	10.0 3	3.3 1	10.0 3	3.3 1	3.3 1	– –	– –	100.0 30
Held Full-time Job	20.0 2	10.0 1	20.0 2	– –	30.0 3	20.0 2	– –	– –	– –	10
# of Cases	22	2	5	1	6	3	1	–	–	40

1958-62 Graduates

	General Mgt.	Finance	Mktg. Sales	Oper. Mgt.	Quant. Methods	Oper. Studies	MIS	MIPC	Other	Total
Did not Work	24.2 15	19.4 12	16.1 10	9.7 6	14.5 9	11.3 7	1.6 1	1.6 1	1.6 1	62
Held Full-time job	22.9 18	11.4 4	22.9 8	5.7 2	20.0 7	14.3 5	–	–	2.9 1	35
# of Cases	33	16	18	8	16	12	1	1	2	97

Table 7 Continued

Sloan Concentration and Pre-Business School Professional Experience

1963-67 Graduates

	General Mgt.	Finance	Mktg. Sales	Oper. Mgt.	Quant. Methods	Oper. Studies	MIS	MIPC	OTHER	Total
Did not Work	30.8 28	23.1 21	7.7 7	4.4 4	13.2 12	6.6 6	12.1 11	--	4.4 4	91
Held Full-time Job	26.5 18	8.8 6	8.8 6	2.9 2	19.1 13	17.6 12	10.3 7	2.9 2	7.3 5	68
# of Cases	46	27	13	6	25	18	18	2	9	159

1968-72 Graduates

	General Mgt.	Finance	Mktg. Sales	Oper. Mgt.	Quant. Methods	Oper. Studies	MIS	MIPC	Other	Total
Did not work	16.8 19	15.9 18	2.7 3	1.8 2	14.2 16	14.2 16	26.5 30	2.7 3	5.4 6	113
Held Full-time Job	13.2 10	17.1 13	5.3 4	5.3 4	5.2 4	9.2 7	25.0 19	6.6 5	9.2 10	76
# of Cases	29	31	7	6	20	23	49	8	12	189

have had a stable amount of students, and slightly fewer students have specialized in Quantitative Methods.

Table 7 shows how a pre-business school professional experience (or lack of it) affects the choice of a concentration. First of all, people with professional experience have more frequently selected a field of specialization than those with no experience. This difference might reflect the fact that those who interrupt their professional career to come to the Sloan School have selected a particular field of specialization, whereas students coming directly from college appear to prefer a general and broad education in management. Secondly, up to 1967, people with no professional experience have less frequently specialized in Marketing, Quantitative Methods, Behavioral Science and were found more frequently in Finance, MIS and Operation Management. For the 1968-72 period some of these trends have been reversed. For these years of graduation, experienced students are more frequently found in Finance, Operations Management, and less frequently in Quantitative Methods and Behavioral Science. In view of such reversals in the relationships, we suspect that factors other than professional experience have a major impact on the selection of an area of concentration. For example, we do not know the extent to which differences between experienced and non-experienced alumni were due to 1) the alteration of the career goals and interests of the applicants 2) the modification of the admission process of the Sloan School of Management 3) or any number of other factors.

Functional area

The functional fields in which alumni work five years after graduation are shown in Table 8. Among recent classes, fewer alumni are found in manufacturing and in engineering-R & D. Contrary to the trend is the apparent upswing in the proportion of alumni working in general management, finance and consulting. The proportion of alumni found in other categories shows either a slow progression(e.g. corporate planning) or no clear trend.

The relationship between pre-business school professional experience and the functional area in which alumni are found five years after graduation is given in Table 9. Few statements apply equally to any period of graduation. (For 1952-1957, the number of cases in most categories are so small that only marketing-sales, manufacturing and engineering-R & D can be interpreted).

Overall, alumni with no prior professional experience are more frequently found in finance, human relations, corporate planning and control, management science and less frequently in management information systems, administration and engineering-R & D than their experienced colleagues. Marketing-sales, manufacturing and consulting show fluctuating positions. Among the 1958-62 graduates, those with pre-business school professional experience were found more frequently in sales-marketing and manufacturing and less frequently in consulting than their inexperienced colleagues. Among the 1963-67 graduates, the situation for marketing-sales, manufacturing and consulting is exactly reversed.

Ten years after graduation few relationships between the functional

Table 8

Functional area five years after graduation

Years of graduation:	1952-57	1958-62	1963-67	Trend
Sample Size:	N=52	N=115	N=159	
General Management	-	2.6	8.2	+
Sales - Marketing	18.4	20.2	18.2	0
Finance	6.1	9.6	10.1	+
Manufacturing	14.3	4.4	5.7	-
Human Relations	-	5.3	4.4	0
Information Systems	8.2	12.3	12.6	0
Corporate Planning	4.1	6.1	6.3	0
Management Science	6.1	12.3	10.1	?
Engineering, R & D	24.5	12.3	1.9	-
Consulting	4.1	5.3	11.6	+
Administration	4.1	4.4	3.1	0
Other	10.2	5.3	6.9	?
Totals	100.1	100.1	100.1	

Table 9

Functional Area Five Years After Graduation and Pre-Business School Professional Experience

1952-57 Graduates

	General Mgt.	Sales Mktg.	Fin-ance	Mfg.	Human Rel.	Info. Sys.	Corp. Plan.	Mgt. Sci.	Eng.	Con-sult	Admin.	Other	Total
Did not work	- -	18.9 7	2.7 1	10.8 4	-	8.1 3	2.7 1	8.1 3	24.3 9	5.4 2	5.4 2	13.5 5	37
Held Full-time job	-	16.7 2	16.7 2	25.0 3	0	8.3 1	8.3 1	-	25.0 3	-	-	-	12
# of Cases	-	9	3	7	-	4	2	3	12	2	2	2	49

1958-62 Graduates

	General Mgt.	Sales Mktg.	Fin-ance	Mfg.	Human Rel.	Info. Sys.	Corp. Plan.	Mgt. Sci.	Eng.	Con-sult	Admin.	Other	Total
Did not Work	2.8 2	16.9 12	12.7 9	1.4 1	5.6 4	11.3 8	9.9 7	14.1 10	11.3 8	8.5 6	2.8 2	2.8 2	71
Held Full-time job	2.3 1	25.6 11	4.7 2	9.3 4	4.7 2	14.0 6	-	9.3 4	14.0 6	2.3 1	7.0 3	7.0 3	43
# of Cases	3	23	11	5	6	14	7	14	14	7	5	5	114

Table 9
(Continued)

	1963-67 Graduates												
	General Mgt.	Sales Mktg.	Fin-ance	Mfg.	Human Rel.	Info. Sys.	Corp. Plan.	Mgt. Sci.	Eng.	Con-sult	Admin.	Other	Total
Did not work	4.4	22.0	13.2	6.6	5.5	11.0	8.8	12.1	2.2	7.7	2.2	4.4	
	4	20	12	6	5	10	8	11	2	7	2	4	91
Held full-time job	13.2	13.2	5.9	4.4	2.9	14.7	2.9	7.4	1.5	19.1	4.4	10.3	
	9	9	4	3	2	10	2	5	1	13	3	7	68
# of Cases	13	29	16	9	7	20	10	16	3	20	5	11	159

Table 10

Functional Area Ten Years After Graduation and Pre-Business School Professional Experience

1952-57 Graduates

	General Mgt.	Sales Mktg.	Fin-ance	Mfg.	Human Rel.	Info. Svs.	Corp. Plan.	Mgt. Sci	Eng.	Con-sult	Admin.	Other	Total
Did not work	10.5 4	15.8 6	2.6 1	13.2 5	2.6 1	10.5 4	7.9 3	7.9 3	13.2 5	7.9 3	2.6 1	5.3 2	38
Held Full-time job	23.1 3	7.7 1	7.7 1	-	7.7 1	15.4 2	23.1 3	-	15.4 2	-	-	-	13
# of Cases	7	7	2	5	2	6	6	3	7	3	1	2	51

1958-62 Graduates

	General Mgt.	Sales Mktg.	Fin-ance	Mfg.	Human Rel.	Info. Sys.	Corp. Plan.	Mgt. Sci.	Eng.	Con-sult	Admin.	Other	Total
Did not work	12.7 9	16.9 12	9.9 7	4.2 3	4.2 3	8.5 6	11.3 8	14.1 10	5.6 4	8.5 6	4.2 3	-	71
Held Full-time job	25.6 11	18.6 8	4.7 2	7.0 3	7.0 3	9.3 4	2.3 1	9.3 4	7.0 3	2.3 1	7.0 3	-	43
# of Cases	20	20	9	6	6	10	9	14	7	7	6	-	114

area and the pre-business school professional experience emerge. Table 10 reveals that alumni with prior professional experience are more often found in general management, human relations information systems, engineering-R & D and less often in management science and consulting than those coming directly from college. For the other categories the trends are inconclusive.

Pre-business school professional experience seems to affect the likelihood of finding an individual in one functional field rather than in another one, five and ten years after graduation. However, the relationship was found to vary with the years of graduation. Several explanations might be proposed to account for the observed differences.

First, people with pre-business school professional experience have attitudes, values and preferences which differ from those straight out of college. Second, entry into some functional fields after graduation might be favored or inhibited by pre-business school professional experience. Third, people with pre-business school professional experience have different educational backgrounds. Fourth, people with pre-business school experience are older.

Organization

The manufacturing sector has by far the largest share of alumni five years after graduation (Table 11). But the share has been sharply declining from 82.0% for the 1952-57 graduates to 57.9% for the 1963-67 graduates. On the contrary, the proportion of alumni in the profit-service organizations and in the non-profit sector has increased from 12.0% and

Table 11

Organization Five Years After Graduation

Years of Graduation:	1952-57	1958-62	1963-67	Trend
Sample Size:	N=52	N=115	N=159	
Manufacturing Organization: large	54.0	46.5	41.5	-
Manufacturing Organization: Medium	26.0	14.9	8.2	-
Manufacturing Organization: small	-	2.6	6.9	+
Own Manufacturing Organization	2.0	2.6	1.3	0
Sub-Total: Profit Sector Mfg.	82.0	66.7	57.9	-
Service Organization: consulting	10.0	12.3	11.9	0
Service Organization: Investment Banking	2.0	0.9	3.1	0
Service Organization: Insurance, Commercial Banking	-	1.8	3.8	+
Own Service Organization	-	-	5.7	+
Sub-Total: Profit Sector Service	12.0	15.0	24.5	+
University and College	4.0	10.5	13.2	+
Foundation	2.0	4.4	2.5	0
Federal Government: civilian	-	0.9	0.6	0
Federal Government: military	-	2.6	1.3	0
Sub-Total: Non-Profit Sector	6.0	18.4	17.6	0

Table 12

Organization Type Five Years After Graduation and Pre-Business School Professional Experience

1952-57 Organization Type-Years

	Manufacturing					Service										
	Large	Med.	Small	Own	Total Mfg.	Consul	Inv. BK	Com. BK.	Own	Total Svc.	Univ. College	Found Non-pro	Civil Govt.	Mility Govt.	Total Non-Profit	Total
Did not work	52.6 20	23.7 9	-	2.6 1	78.9 30	13.2 5	-	-	-	13.2 5	5.3 2	2.6 1	-	-	7.9 3	38
Held Full-time job	58.3 7	33.3 4	-	-	91.7 11	8.3 1	-	-	-	8.3 1	-	-	-	-	-	12
# of Cases	27	13	-	1	41	6	-	-	-	6	2	1	-	-	3	50

1958-62 Organization Type-Years

	Manufacturing					Service										
	Large	Med.	Small	Own	Total Mfg.	Consul	Inv. BK.	Com. BK.	Own.	Total Svc.	Univ. College	Found Non-pro	Civil Govt.	Military Govt.	Total Non-Pro	Total
Did not work	39.4 28	14.1 10	4.2 3	2.8 2	60.6 43	15.5 11	2.8 2	2.8 2	- -	21.1 15	12.7 9	4.2 3	-	1.4 1	18.3 13	71
Held Full-time job	58.1 25	16.3 7	-	2.3 1	76.7 33	4.7 2	-	-	-	4.7 2	7.0 3	4.7 2	2.3 1	4.7 2	18.6 8	43
# of Cases	53	17	3	3	76	13	2	2	-	17	12	5	1	3	21	114

Table 12 Continued

1963-68 Organization Type-Years

	Manufacturing				Total Mfg.	Service				Total Svc.						
	Large	Med.	Small	Own		Consul	Inv. Bk	Com. BK	Own		Univ. College	Found Non-Pro	Civil Govt	Military Govt.	Total Non-Profit	Tota
Did not Work	45.1 41	9.9 9	6.6 6	1.1 1	62.6 57	8.8 8	4.4 4	4.4 4	1.1 1	18.7 17	14.3 13	2.2 2	-	2.2 2	18.7 17	91
Held Full-time Job	36.8 25	5.9 4	7.4 5	1.5 1	51.5 35	16.2 11	1.5 1	2.9 2	11.8 8	32.4 22	11.8 8	2.9 2	1.5 1	-	16.2 11	68
# of Cases	66	13	11	2	92	19	5	6	9	39	21	4	1	2	28	169

Table 13

Organization Type Ten Years After Graduation and Pre-Business School Professional Experience

1952-57 Organization Type-Years

		Manufacturing			Total Mfg.	Service				Total Svc.	Univ. College	Found Non-Pro	Civil Govt.	Military Govt.	Total Non-Profit	Tota
	Large	Med.	Small	Own		Consul	Inv. Bk	Com. Bk	Own							
Did not work	44.7 17	15.8 6	2.6 1	-	63.2 24	18.4 7	2.6 1	-	2.6 1	23.7 9	7.9 3	2.6 1	2.6 1	-	13.2 5	38
Held Full-time job	38.5 5	23.1 3	15.4 2	-	76.9 10	7.7 1	-	15.4 2	-	23.1 3	-	-	-	-	-	13
# of Cases	22	9	3	-	24	8	1	2	1	12	3	1	1	-	5	51

1958-62 Organization Type - Years

		Manufacturing			Total Mfg.	Service				Total Svc.	Univ College	Found Non-Pro.	Civil Govt.	Military Govt.	Total Non-Profit	Tota
	Large	Med.	Small	Own		Consul	Inv. Bk	Com. Bk	Own							
Did not Work	31.0 22	18.3 13	4.2 3	7.0 5	60.6 43	12.7 9	4.2 3	2.8 2	-	19.7 14	15.5 11	2.8 2	1.4 1	-	19.7 14	71
Held full-time job	41.9 18	14.0 6	11.6 5	9.3 4	76.7 33	7.0 3	-	-	4.7 2	11.6 5	7.0 3	2.3 1	-	2.3 1	11.6 5	43
# of Cases	40	19	8	9	76	12	3	2	2	19	14	3	1	1	19	114

6.0% to 24.5% and 17.6% respectively.

Within these categories, large manufacturing organizations have attracted the largest number of alumni, but its share of alumni has been slowly reduced from 54.0% to 41.5%. The other kinds of organizations employing at least ten per cent of the alumni at some point in time show different tendencies. The proportion of alumni in medium-sized organizations dropped, consulting firms kept their share and universities and colleges attracted progressively more alumni.

There again, for the 1963-68 graduates, there is a reversal in the effect of pre-business school professional experience on the kind of organizations alumni work with five years after graduation (Table 16). Up to 1962, alumni with professional experience prior to their graduate studies were found much more frequently in manufacturing organizations and less frequently in service organizations than their less experienced colleagues. For the 1963-68 graduates the opposite statement is true. Prior experience is related to a lower proportion of alumni in manufacturing and a higher proportion in service! Experience seems to have a neutral effect on the employment in the non-profit sector.

In particular these statements apply to the organization types which comprise the largest proportion of alumni in each category, i.e. large and medium sized organizations, consulting, with the exception of universities and colleges where pre-business school experience is negatively related to work. Ten years after graduation (Table 13), pre-business school experience is still positively related to work in manufacturing organiza-

tions and negatively related to work in service organizations. The only noticeable change is a shift toward smaller manufacturing concerns (the movement toward smaller manufacturing concerns is related to career dynamics phenomena).

These results are ambiguous. The fact that the major findings depend on the sub-sample examined suggests that temporal factors more important than pre-business school professional experience affect the type of organization alumni work with. Among these factors the labor market conditions for employment in these various organizations and the dominant values among a class of alumni appear to be more important than the existence or lack of pre-business school professional experience.

Line-Staff Levels

On the average, five years after graduation, about 60 per cent of the alumni are in staff positions and only 40 per cent are in line positions (Table 14). Graduates of 1963-67 have a slightly higher proportion of alumni in line positions than the graduates of the previous classes. The increase in the proportion of people in line positions is so small that it can hardly be interpreted as the emergence of a new line-staff pattern. What is more striking is the increase both for line and staff positions of the proportion of alumni at higher hierarchical levels. In staff positions, the proportion of people in senior positions increased steadily, and "middle management" which is the lowest line position, had a decreasing share among those on line positions. One should also note the increase

Table 14

Line-staff levels
Five Years After Graduation

Years of Graduation	1952-57	1958-62	1963-67	Trend
Sample Size:	N=52	N=115	N=159	
Founder - Owner	2.0	2.7	6.3	+
General Manager	2.0	1.8	6.3	+
Top Functional Manager	10.2	4.4	8.8	?
Middle Management	24.5	27.4	20.8	?
Sub-Total Line Position	38.7	36.3	42.2	
Senior Staff	8.2	10.6	17.0	+
Junior Staff	53.1	53.1	40.3	-
Sub-Total Staff Position	61.3	63.7	57.3	
Other	-	-	0.6	-
Totals	100.0	100.0	100.0	

Table 15

Line Staff Levels Five Years After Graduation and Pre-Business School Prof. Experience

1952-57 Graduates

	Founder	General Mgr.	Top Fn. Mgr.	Middle Mgt.	Sub Total Line	Senior Staff	Junior Staff	Sub Total Staff	Total
Did not work	2.7 1	-	8.1 3	18.9 7	31.7 11	8.1 3	62.2 23	68.3 26	37
Held full-time job	-	8.3 1	16.7 2	41.7 5	66.6 8	8.3 1	25.0 3	33.3 4	12
# of Cases	1	1	5	12	19	4	26	30	49

1958-62 Graduates

	Founder	General Mgr.	Top Fn. Mgr.	Middle Mgt.	Sub Total Line	Senior Staff	Junior Staff	Sub Total Staff	Total
Did not work	2.9 2	-	4.3 3	21.4 15	28.6 20	11.4 8	60.0 42	71.4 50	70
Held full-time job	2.3 1	-	4.7 2	41.9 18	48.8 21	9.3 4	41.9 18	51.2 22	43
# of Cases	3	-	5	33	41	12	50	72	113

Table 15 Continued

1963-67 Graduates

	Founder	General Mgr.	Top Fn. Mgr.	Middle Mgt.	Sub Total Line	Senior Staff	Junior Staff	Sub Total Staff	Total
Did not work	3.3 3	2.2 2	9.9 9	20.9 19	36.2 33	22.0 20	41.8 38	63.8 58	91
Held Full-time job	10.3 7	11.8 8	7.4 5	20.6 14	50.0 34	10.3 7	39.7 27	50.0 34	68
# of Cases	10	10	14	33	67	27	65	92	159

Table 16

Line Staff Levels Ten Years After Graduation and Pre-Business School Prof. Experience

1952-57 Graduates

	Founder	General Mgr.	Top Fn. Mgr.	Middle Mgt.	Sub. Total Line	Senior Staff	Junior Staff	Sub Total Staff	Total
Did not work	2.7 1	2.7 1	16.2 6	43.2 16	64.9 24	13.5 5	21.6 8	35.1 13	37
Held full-time job	-	15.4 2	38.5 5	23.1 3	73.5 10	15.4 2	11.1 1	26.5 3	13
# of Cases	1	3	11	19	34	7	9	16	50

1958-62 Graduates

	Founder	General Mgr.	Top Fn. Mgr.	Middle Mgt.	Sub. Total Line	Senior Staff	Junior Staff	Sub. Total Staff	Total
Did not Work	7.1 5	5.7 4	24.3 17	24.3 17	61.4 43	12.9 9	25.7 18	38.6 27	70
Held full-time job	14.0 6	11.6 5	23.3 10	27.9 13	79.0 34	4.7 2	16.3 7	21.0 9	43
# OF Cases	11	9	27	30	77	11	25	36	113

in the proportion of entrepreneurs-founders.

Whatever the period of graduation, pre-business school prefessional experience is associated with a higher proportion of people in line positions (Table 15). For example, among the 1958-62 graduates 48.8% of them with prior professional experience are in line positions against only 28.6% of those with no prior professional experience. No clear relationship between pre-business school professional experience and hierarchical levels appears either for line or for staff positions.

Ten years after graduation (Table 16), alumni with pre-business school professional experience are still more frequently found in line positions than in staff positions, but the difference is rather small. In line positions, alumni with prior experience are at higher hierarchical levels than their less experienced counterparts. To summarize, the alumni with pre-business school professional experience are more frequently found in line positions rather than in staff positions, and in higher rather than lower level line positions. However the causality links between pre-business school professional experience and line-staff levels is not clear. First, experienced students in a class are two to four years older than the non-experienced students. Therefore part of the difference between the two groups may be due to age differences (as people get older they tend to go into line positions and to be promoted to higher ranks). Second, it was shown that experienced alumni are in functional areas and work for organizations which are different from those chosen by their less experienced colleagues. In my thesis, chapter 7, I indicated that

line-staff levels interact with the functional area and the functional field. Therefore differences in terms of line-staff levels may be caused by differences in organizations and functional areas.

Income

Table 17 shows a breakdown of annual income five and ten years after graduation by pre-business school professional experience status.

Five and ten years after graduation, alumni with pre-business school professional experience do not earn systematically more money than their colleagues coming directly from undergraduate school. In previous research (dissertation work on career paths), it was found that income varies with functional area, organizational type and line-staff level. People with pre-business school experience are more frequently found in line jobs and, based on our previous research, we would expect them to earn more money. However, the line-staff position and income are not independent from the functional field and from the kind of organization people work with. Because later career positions were found to be loosely related to pre-business school experience, it is not surprising that income is not related to prior experience.

Concluding Remarks

Undergraduate school categories and undergraduate field categories were found to be strongly related to pre-business school professional experience. This finding suggests the possibility of multi-interdependencies

Table 17

Annual Income Five and Ten Years After Graduation Broken Down
By Pre-Business School Professional Experience Status

Years of Graduation:	1952-57	1958-62	1963-67
Income Five Yrs. After Graduation			
Entire population	11.6	14.7	21.4
	47	101	144
Did not work	11.1	15.1	20.8
	36	62	80
Held full time job	13.5	14.2	22.1
	11	39	64
Income Ten Yrs. After Graduation			
Entire population	19.9	26.5	*
	48	103	*
Did not work	19.1	27.8	*
	35	65	*
Held full-time job	22.2	24.1	*
	13	38	*
Age			
Entire population	41.8	37.6	32.7
	52	115	159
Did not work	41.4	36.0	31.2
	39	71	91
Held full-time job	43.1	40.2	34.6
	13	44	68

among the admission criteria at the Sloan School of Management. In such a case, treating each admission factor separately does not account fully for these interdependencies. Further research on the relationships among the dimensions taken into account in the admission process could permit the identification of critical independent variables. These results, in turn, would allow the implementation of a simpler and more effective admission process.

On the other hand, no evidence has been found that pre-business school professional experience alters the later professional career of alumni. Five and ten years after graduation, the functional area, the type of organization, the line-staff level and the annual income characterizing the occupations of alumni with pre-business school professional experience did not reveal any systematic difference when compared with alumni coming directly from college.

The discovery of opposite relationships between the 1952-62 sub-sample and the 1963-67 sub-sample is interesting. Several explanations can be proposed to account for this reversal in the relationship between pre-business school experience and the career dimensions.

First, pre-business school professional experience alone has no significant impact on later career development; other variables, some being related to pre-business school professional experience, play a dominant role in influencing careers.

Second, pre-business school professional experience presumably has a large variety of effects on the attitude, knowledge and behavior of

individuals. These effects may be determined by the kind of professional experience one has. Therefore it is the meaning of pre-business school professional experience for the individual which should matter in affecting later career development. From this point of view, pre-business school professional experience would be essentially the occasion for modifications of knowledge, attitudes and values which would, in turn, affect careers.

To conclude, the careers of alumni with pre-business school professional experience differ only slightly from those coming directly from undergraduate school. Therefore the premium put on professional experience in the admission process by business schools is hard to justify in terms of later career development. More research should be done to find out whether graduate students with pre-business school professional experience differ from their colleagues coming directly from college in their attitudes, behavior, and later satisfaction with their careers.

SLOAN SCHOOL ALUMNI QUESTIONNAIRE

Appendix 1

RSONAL INFORMATION

e ______________ ______________ ______________
Last First Middle

e
ress ______________ ______________ ______________ ______
# Street City State Zip

izenship ______________ Age ____ Sex ____ Marital Status ______________ # of Children ____

iness
ress ____
____

UCATION

ergraduate
ool: ______________ Field of Study ______________ Degree ______ Year ____

n School: S.M. 19 __ Area of Concentration ______________
Ph.D. 19 __ Area of Concentration ______________

itional Education: Please specify schools, areas, degree (if any), years

______________ ______________ ______________ ______________
______________ ______________ ______________ ______________

RESENT JOB

efly describe your major functions ________________________________
____

ation of headquarters ______________ Total # of employees in organization ____

l yearly professional income (include profit sharing, fees, etc.) ______________

use's occupation ______________ Spouse's working income ______________

TIONAL HISTORY

ng with your present job, for each of the major jobs you have held, list organization, job title, es, starting and final salaries; please include your professional experience prior to your admission the Sloan School, but not military service; if any military service, give dates: ______________

Employing Organization	Job Title	Dates (begin--end)	Salaries (begin--end)

Continue on reverse side for additional entries

hat parts of your Sloan School education did you find most and least valuable (use reverse side if necessary)

____
____
____

hat changes would you now recommend in the program you took at the Sloan School ______________
____
____
____

ase fold, staple or tape, and mail.

APPENDIX 2

SSM alumni Sample

	MALE				FEMALE	TOTAL		
	U.S. Citizens		Foreign Citizens					
Graduation Year	Ph.D. with no SM	SM	Ph.D. with no SM	SM	SM	Sample	Popul.	Sampling Ratio
1972	2	38	1	5	3	49	126	38.9
1971	3	52	2	11	3	71	95	74.8
1970	1	41	1	16		59	104	56.7
1969	5	25	1	15	1	47	92	51.1
1968	4	33		6		43	85	50.6
Subtotal 1968-1972	15	189	5	53	7	269	502	53.6
1967	2	24	1	10		37	75	49.3
1966	5	29	1	8		43	82	52.4
1965	1	42		15		58	86	67.4
1964	1	26		5		32	66	48.5
1963	1	38		3		42	74	56.8
Subtotal 1963-67	10	159	2	41		212	383	55.4
1962		22		7		29	78	37.2
1961		25		6		31	59	52.5
1960		17		6		23	62	37.1
1959		26		1		27	65	44.5
1958		25		2		27	61	44.3
Subtotal 1958-1962		115		22		137	325	42.2
1957		16		4		20	41	48.8
1956		9		1		10	32	31.3
1955	1	4		1		6	29	20.7
1954		8		4		12	33	36.4
1953		8		1		9	13	69.2
1952		7		1		8	24	33.3
Subtotal 1952-1957	1	52		12		65	172	37.8
Subtotal 1952-1972	26	515	7	128	7	683	1396	48.9
Before 1952	0	62	0	6		68	222	30.6
TOTAL	26	577	7	134	7	751	1618	46.4

Appendix 3

Organizations

The classification of organizations is shown in Table 1. This classification has the following properties. First, it distinguishes profit sector (organizations 01 to 08) from non-profit sector (organizations 09 to 13). Second, the profit sector is divided into organizations with a manufacturing orientation (code 01 to 04) and organizations with a service orientation (code 05 to 08). In addition to traditional manufacturing organizations (e.g. Chrysler, G.E.), our concept of "manufacturing" includes any industry which requires heavy equipment such as airlines, oil drilling, refining and distribution, public utilities, railways. Third, manufacturing organizations were differentiated by size. Because a large proportion of alumni--

Appendix 3

Table 1

Type of Organization

01. Mfg organization: large (over 10,000 people world-wide)
02. Mfg organization: medium (301 to 10,000 people world-wide)
03. Mfg organization: small (less than 300 people)
04. Own Mfg organization

05. Service org.: consulting
06. Service org.: investment-banking
07. Service org.: insurance, commercial banking
08. Own service org.--self employed

09. University and College
10. Non-profit org.--Foundation
11. Federal Government: civilian
12. Federal Government: military
13. Local Government
99. NA

about 50% of the total sample--were working in manufacturing organizations and work in large organizations requires different attitudes and behavior than work in small organization, this category was further refined by size.

Three types of manufacturing organizations were identified: the "large" ones employing 10,000 or more people which encompasses most multinational firms and covers most of the 300 largest companies in the Fortune's list, the "medium" ones employing more than 300 people but less than 10,000, and finally the "small" ones with less than 300 people.

For the other types of organizations, the differentiation by size was less meaningful. Working in one's own company, working in a university or a college, in a non-profit foundation, with the civilian or military branch of government corresponds to occupational environments which are radically different from each other. Moreover the size of the organization of each of these categories is in a narrow range. We will see in the findings that none of the founders-owners were employing more than 300 people. The federal government, civilian and military, and local government (New York City only) were well over 10,000 employees. Consequently "owned" organizations, universities and colleges, non-profit foundations, civilian, military and local branches of government were not subdivided by size.

As for the service organizations the issue is slightly different. Owned service organization and Consulting and Investment Banking were pulled out as corresponding to very special work environments. Most of the remaining people in service organizations were with commercial banks

and just a few alumni were with insurance companies. Both types of organizations were merged on the grounds that both were financial institutions and that there are no marked differences between the work environments of commercial banking and insurance.

One question considered was whether to differentiate the service organizations by size. There is a whole spectrum of sizes in service organizations: over 10,000 employees for Booz-Allen-Hamilton, Merill-Lynch, First National City Bank, Hartford Insurance; between 300 and 10,000 employees for E.F. Hutton, Oppenheimer, Bank of Atlanta, McKinsey; less than 300 for a large number of other organizations. It was decided not to differentiate the service organizations by size because a) it was felt that the norms prevailing in these organizations were rather independent of size, and b) some categories would have had so small a number of subjects (e.g. 4 or 5 people) that analyses would be meaningless.

3.3.2 Role

"Role" was defined as any job title and description, indicating at least the functional area or department in which the person worked, his staff-line position and his hierarchical level.

One of the major issues with our role concept is that its meaning varies with the organizational setting. There may be a tenuous relationship between the kind of work performed by a finance professor, an officer with Chase Manhattan, or Oppenheimer, and a federal executive at the Treasury even though they may all be in finance. Similarly, the function corresponding to a hierarchical level depends upon the organizational

setting: IBM or ITT's Executive Vice Presidents perform functions which are hardly comparable to those of the EVP of a small manufacturing concern. However, it would be impractical to design a taxonomy specifying each role for each kind of organization. With 13 categories of organizations, 13 categories of functional fields, and 7 categories of staff-line levels, the number of organization-role categories would run to 13 X 13 X 7 = 1,183 categories! Moreover our central assumption of continuity in career dynamics can be checked first on the functional fields, organizations and staff-line levels independently. The two clarifications which were adopted, one for the functional field of activity , and one for the line-staff levels are shown in Tables 6 and 7 respectively.

From 01 to 09, the codes of functional fields reflect the major functional departments found in large corporations. Three additional categories--"Consulting", "Administration" and "Other"--take into account some pecularities of the SSM population. To help the reader understand the coding scheme, a sample of job titles or activities illustrate each category. To interpret the underlying rationale for each category, some explanations are provided below:

General management comprises alumni with titles such as Chairman of the Board, EVP, general manager, President, President of subsidiary, founder-president with at least 5 people in their organization. Alumni with similar titles but less than 5 people were classified in Administration. In the functional field, no distinction is made among general management of own organization and general management of publicly owned

Appendix 3 - Table 2

Functional Fields

01 General Management:
Chairman of the Board, Executive Vice-President, General Manager, (at least a 5 person organization).

02 Sales-Marketing:
Representative, District Sales Manager, Area Sales Manager, Market Research, Advertising, Product Manager, Distribution, Trade Publishing, Integration, Product-Marketing Plans, Technical Sales Support, Customers' Assistance, Brand Manager.

03 Finance:
Treasurer, Portfolio Management, Capital Investment, Security Analysis, Acquisitions, Mergers, Divestment, Investment, Stock Issues, Relations with Banking System.

04 Manufacturing:
Operations, Plant Management, Production, Superintendant, Foreman.

05 Personnel and Human Relations:
Labor Relations, Personnel Public Relations, General Education and Training, Organizational Psychology and Behavior, Organization Development.

06 Computerized Information Systems:
Computer Facilities, Programming, Systems Analysis.

07 Corporate Planning and Control:
General Accounting, Budgets, Planning and Control, Audit, Planning of Production, Inventory, Finance Analysis, Capital Investment Analysis.

08 Management Science:
Operations Research, Economic Research, Business Analysis, Systems Dynamics, Statistical Analysis, Modelling.

09 Engineering - R & D:
Project Design, Process, Development, Applications, Quality Control, Mining, Research, Method.

11 Consulting:
Consultant, Management Consultant, Consultant in Public Policy, Consultant in Marketing.

12 Administration:
Associate Dean, Housing and Dining Director, Program Chief with Federal Government, Project Manager, Hospital Administrator.

13 Other:
International Business, Import-Export, Legal Counselling, Unemployed, Unspecified.

Appendix 3--Table 3

Line-Staff levels

1. Founder-Owner;

2. General Manager:

   President
   Chairman
   Member of the board
   Chief executive Officer
   General Manager
   Executive Vice President
   Corporate Group Vice President
   President of Subsidiary
   General, Admiral
   Partner
   Dean
   Provost, Chancellor
   Executive Director
   Secretary
   Mayor
   Commissioner

3. Top Functional Manager:
   Vice President
   Consultant: Partner or Associate
   Dean: Associate or Assistant
   Manager of Administrative Function.
   Head of Department
   Research Director
   Program Administrator
   Director
   Lieutenant-Colonel, Colonel

4. Middle Management:

   Chief
   Manager
   Superintendant
   Consultant, Principal
   Research Associate or Officer or Manager
   Program Responsible or Manager
   Assistant V.P.
   Lieutenant Major
   Ensign Commander
   First Line Supervisor

5. Senior Staff:

   Senior Lecturer
   Professor
   White House Fellow
   Principal Consultant
   Senior Consultant

6. Junior Staff:

   Manager Assistant or Associate
   Professor Assistant or Associate
   Analyst Market or Financial or Security or System
   Research Assistant or Specialist or Fellow
   Auditor
   Engineer
   Associate Consultant

7. Dont Apply:

   Student
   Retired
   Unemployed
   Independent
   Self-Employed

9. N.A.

organization.

Sales and Marketing were combined in a single category. Those in the group who had invariably a marketing responsibility, even for jobs including sales activities and the three sales representatives, did not justify a special category.

Finance as a classification has a more limited meaning than usually accepted. In the Finance category are functions linked to the banking system and security market and involve financing, mergers, divestment, stock issues, security analysis. Financial analysis, capital investment analysis and cash flow analysis jobs were classified in the category "Corporate Planning and Control."

Manufacturing covers any manufacturing operations with the exclusion of process engineering, quality control and development engineering which were included in the category "Engineering-R & D".

Personnel and Human Relations includes personnel function relations with labor, public relations as well as any activity of organizational development such as O.D., education and training, organizational psychology and behavior.

Computerized information system comprises any activity centered around computers such as management of computer facilities , programming, scientific programming, systems analysis and systems design.

Corporate Planning and Control includes any planning and control activities--e.g. accounting, cost accounting, budgeting, auditing, production planning and inventory planning. Financial and capital invest-

ment analysis jobs are considered as planning and control functions rather than financial functions.

Management Science encompasses quantitatively based activities. Included in this group are operations research, statistical analysis, modelling, systems dynamics as well as economic research and business analysis.

Engineering-R & D takes into account engineering-R & D activities. It includes project, design, process, development, application, mining, research, method and quality control engineering.

Consulting is a special case. Because the majority of alumni in consulting did not specify a special field of expertise but said simply "management consultant" or "consultant", and considering the large proportion of alumni involved in consulting activities, it was decided to put them apart in this special category. Unless a consultant was a partner or general manager--in this case he was classified as general management--he was put in the category "consulting" even though the field of expertise was specified.

Administration was designed to deal with administration or project management jobs which were not in general management and had no clear functional orientation. For instance in this category are dining and housing directors, program chiefs with the Federal Government, Associate Deans, a director of athletics, a director of alumni office, several project managers and hospital administrators.

Other takes care of all remaining cases--e.g. international business, im-

port-export, legal counselling, unemployed, as well as functions in unspecified fields such as trainee, manager, director or vice-president.

The classification of ranks integrates in a single classification the staff-line position and hierarchical level. The present classifications shown in Table 7 make the following distinctions:

First, the founder-owners are in a special category called "founder-owner" to separate them from the general managers working in companies which are not their own. Most "founders-owners" are chairman, president and/or general manager, but we wanted to isolate them from the "regular" general managers.

Second, "general managers" applies to people having more than one hundred employees in their organization. A president or general manager in an organization of less than one hundred people has been classified as a functional manager or a senior staff depending upon his job specification.

Third, a "top functional manager" reports directly to the general manager and assumes top responsibilities of a department. The titles corresponding to functional manager are listed in Table 7, and whereas there is no difficulty for the business sector, a list of equivalent responsibilities in University, Foundation and Government was intuitively established.

Fourth, a person in "middle management" has direct line responsibilities over a group of subordinates, but is not in charge of a whole department and most often reports to a top functional manager. Here again,

equivalent levels were found for University, Foundation and Government jobs.

Fifth, "Staff" is any one with no direct line responsibility over a group of employees. The distinction between junior and senior reflects differences in authority, expertise, seniority and income among staff people. A list of titles corresponding to Senior staff and Junior staff are presented.

/26/73

18

Date Due

DEC 19 '78
DEC 29 '78
DEC 01 [illegible]
JUL [illegible] 1990
MAR 6 '79
MAY 2 [illegible]
MAR 3 [illegible] 2000
JAN 07 '82
NOV 11 '82
Dec 9, '82
MAR 25 '87
JAN 03 1989

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